

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-2. (Canceled)

3. (Currently Amended) An apparatus comprising:

a plurality of photodetector elements disposed on a semiconductor substrate; and

a compound light directing member comprising a light pipe bundle, at least some of the light pipes to individually direct light energy from one or more sources onto one or more of the photodetector elements,

outputs of the photodetector elements being electrically coupled using a compound eye wiring pattern such that an image associated with one or more sources ~~may be~~ is synthesized at output circuitry, the photodetector elements and compound light directing member together comprising a substantially planar artificial compound eye.

4. (Original) The apparatus of claim 3 wherein the light pipe bundle includes first and second light pipes, the first light pipe having an external surface that is at a first angle relative to the substrate to preferentially receive light from a first direction, the second light pipe having an external surface that is

at a second angle relative to the substrate to preferentially receive light from a second direction, the first and second angles and first and second directions being different from each other.

Claims 5-9 (Canceled)

10. (Currently Amended) An apparatus comprising:
a light directing member including a plurality of fiber optic elements; and
an array of photodetector elements disposed on a single integrated circuit device, a set of the photodetector elements being coupled to receive light energy from a source via one or more of the fiber optic elements, the set of the photodetector elements being wired using a compound eye wiring pattern to produce an image corresponding to the source at output circuitry to be coupled to the set of the photodetector elements,
wherein the light directing member and the single integrated circuit device together provide a substantially planar, artificial, compound eye.

Claims 11-22 (Canceled)

23. (New) The apparatus of claim 3 wherein
a distance between the plurality of photodetector elements and the compound light directing member is less than or equal to .0001 meter, and

wherein a distance between the compound light directing member and the one or more sources is greater than or equal to .1 meter.

24. (New) The apparatus of claim 23 wherein the compound light directing member provides an optical window in an integrated circuit package including the plurality of photodetector elements.

25. (New) The apparatus of claim 3 wherein the compound eye wiring pattern interconnects at least two photodetector elements that are not adjacent to each other to provide adjacent pixels of the image.

26. (New) The apparatus of claim 10 wherein a distance between the plurality of photodetector elements and the light directing member is less than or equal to .0001 meter, and wherein a distance between the light directing member and the source is greater than or equal to .1 meter.

27. (New) The apparatus of claim 26 wherein the light directing member provides an optical window in an integrated circuit package including the array of photodetector elements.

28. (New) The apparatus of claim 10 wherein
the compound eye wiring pattern interconnects at least two photodetector
elements that are not adjacent to each other to provide adjacent pixels of the
image.

29. (New) A method comprising:
receiving light from a source at a photodetector array disposed on a single
semiconductor substrate via a fiber optic bundle; and
synthesizing an image corresponding to the source using a compound eye
wiring pattern that electrically interconnects outputs of the photodetector array.

30. (New) The method of claim 29 wherein
receiving light from the source includes receiving light from the source
separated from the fiber optic bundle by at least .1 meter.

31. (New) The method of claim 30 wherein
receiving light from the source at the photodetector array via the fiber optic
bundle includes receiving light from the source at the photodetector array via the
fiber optic bundle separated from the photodetector array by .0001 meter or less.

32. (New) The method of claim 29 wherein
receiving light from the source at a photodetector array via the light pipe
bundle includes receiving light at a first light pipe having an external surface that

is at a first angle relative to the substrate to preferentially receive light from a first direction and receiving light at a second light pipe having an external surface that is at a second angle relative to the substrate to preferentially receive light from a second direction, the first and second angles and first and second directions being different from each other.

33. (New) The method of claim 29 wherein receiving light from the source at the photodetector array disposed on the single semiconductor substrate via the fiber optic bundle includes receiving light via a fiber optic bundle providing an optical window in an integrated circuit package including the photodetector array.